

PRECISION

SIMPLIFIED.



R A V E N

PRECISION

Since 1978, Raven has helped create, define and redefine precision agriculture.

We continue today to bring groundbreaking new products to growers around the world.

The purpose? To put you in control. To help you work smarter, reduce input costs and farm more efficiently.

And, ultimately, to increase your yield and profitability.

SIMPLIFIED

You shouldn't need a Ph.D. to use your own farm equipment.

That's why Raven products are easy to operate. They're designed to work with other Raven products. And with other technology brands.

Because of Raven's simplicity and reliability, it's the precision ag brand most preferred by farm machinery and equipment manufacturers.

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THIS ISN'T YOUR GRANDFATHER'S FARM

Raven's precision ag products and systems fulfill the promise of technology by providing information, control and the opportunity to increase profitability.

Select a product that meets your specific needs. Or build a precision farming system perfect for your operation, with:

FIELD COMPUTERS

The in-cab "brains," with easy-to-read displays, intuitive menus and simple operation.

SLINGSHOT®

Add accuracy, save time and get Internet connectivity in the cab with Slingshot.

HARVEST CONTROLS

Monitor in real-time along with data recording and yield calculations in the cab while you harvest.

GUIDANCE & STEERING

Improve accuracy and reduce fatigue when you're in the field.

APPLICATION CONTROLS

Apply fertilizer and chemicals only where you really need them.

BOOM CONTROLS

Improve efficiency during spraying operations by managing boom height and section controls.

PLANTER & SEEDER CONTROLS

Accurate seeding and planting give you accuracy, input savings and total efficiency.

TECHNICAL SUPPORT

If you need technical support, we're all over it, with:

- Raven's Precision Ag Specialists, located worldwide
- The RavenHelp.com website, created to give you immediate access to technical information
- Telephone Support from experts within the company
- Raven's Network of Dealers and Distributors



EQUIPMENT.



VIPER® 4

The Viper 4 is a powerful, fourth generation Viper field computer. Yet it's also the first in a new generation of field computers powered by the new Raven Operating Software, which integrates Raven's full line of products into one connected platform.

Designed to work with equipment of any brand, the Viper 4 is easy to use, requiring fewer touches and providing greater efficiency. It's a highly advanced field computer with intuitive controls, improved ease of use and extraordinary data management capabilities. And for your operation, this means increased efficiency, productivity and profitability.



UTILIZE VIPER 4 TO ITS FULL POTENTIAL
WITH THESE ENHANCEMENTS:

SmarTrax™ MD

SmarTrax™/
SmarTrax™ RTK

AutoBoom®

AccuBoom™

Sidekick Pro™

AccuFlow™



FEATURES INCLUDE:

- Swiping feature
- Customization by user and machine
- Horizontal or vertical orientation
- An abundance of storage capacity
- Sleek design with 12.1" LED backlit display and state-of-the-art rugged magnesium alloy enclosure
- Responsive touchscreen and intuitive, tablet-like interface
- Dustproof for tough environments
- 4 camera inputs for monitoring bin levels, blind spots, etc.
- 2 USB ports
- Ethernet port for Slingshot®
- Integrated, fully scalable GPS receiver
- CANbus ports

SLINGSHOT READY

Powered by Raven Operating Software and a high-speed processor, Viper 4 harnesses the power of Slingshot for outstanding data management functionality. You get powerful tools for gathering, tracking and reporting. Getting the data you need, organizing it and turning it into meaningful information is faster and easier. And Slingshot gives you access to live remote support from Raven's team of experts.



ENVIZIO PRO™ ENVIZIO PRO II® ENVIZIO PRO XL™

Ready to take a giant step forward in farming? Raven's Envizio Pro series of multi-function field computers enable you to control, simplify and improve virtually every phase of your operation.

With a single field computer, you enjoy increased efficiency, cost savings and reduced fatigue. Envizio Pro field computers are also Slingshot®-ready, which means you have access to Raven's remote live support team.



Envizio Pro XL features a brilliant, 10.4" color touch screen

UTILIZE THE ENVIZIO PRO SERIES TO ITS FULL POTENTIAL WITH THESE ENHANCEMENTS:

SmarTrax™ MD

SmarTrax™/
SmarTrax™ RTK

AutoBoom®

AccuBoom™

Sidekick Pro™

Application
Controls

EASY TO USE AND FEATURES MULTI-PRODUCT CONTROL WITH VRA, PLUS:



- Brilliant color, non-glare touch screen display
- All season capability for planting, spraying, spreading, harvest and tillage
- Get simple and advanced mapping, data and application reports
- Scalable GPS options, including OmniStar[®] and RTK
- Multiple language support
- USB and Ethernet ports

SLINGSHOT READY

Use Slingshot with any of the Envizio Pro field computers to turbo-charge your precision ag equipment and software. You get unrivaled high-speed wireless connectivity, cellular-enabled technology, uninterrupted signals/data transfer, industry-leading wireless RTK corrections and vehicle tracking. And Slingshot gives you access to live remote support from Raven's team of experts.



AccuFlow™

OmniRow®

OmniSeed™

Switch Pro™

SmartYield™ Pro

Slingshot®

SLINGSHOT®

WELCOME TO FARMING 2.0

Raven has propelled precision ag to an entirely new level with this innovative product. Slingshot combines wireless connectivity with robust online tools and top-shelf precision ag hardware to upgrade your level of control and efficiency.

Software plays a big role in modern agriculture. Slingshot partners with several agricultural software companies to bring you a complete solution. The Slingshot API allows other software solutions to securely access data in Slingshot so that you can have the data you need in the program you need it. Slingshot is about fitting into the way you do business.

UTILIZE SLINGSHOT WITH THE FOLLOWING FIELD COMPUTERS:

Viper® 4

Viper Pro™

Envizio Pro™

Envizio Pro II®

Envizio Pro XL™

SLINGSHOT FIELD HUB

Designed to work with major cellular phone networks in North America and around the world, the Slingshot Field Hub serves up high-speed Internet on your field computers. You can also connect devices like phones and tablet computers to Wi-Fi enabled versions of the Field Hub.

SLINGSHOT RTK

The Slingshot Field Hub allows you to access Slingshot's advanced RTK correction signals, or those provided by third-party providers, such as CORS networks. Slingshot's cellular-based RTK enables you to operate without worrying about line of site limitations characteristic of radio-based RTK. You can provide RTK coverage for up to 1.8 million acres with a single Slingshot Base Station.

SLINGSHOT GS

Slingshot GS is a new cellular-delivered correction service with decimeter accuracy, without the need for a local reference station. You can even leverage your existing Slingshot Field Hub and Raven GPS hardware to access Slingshot GS. Talk to your Raven dealer for more information on pricing and compatibility.

SLINGSHOT ONLINE

Store your job data from Raven field computers in your secure Slingshot database that you can access anytime, anywhere with a simple Web browser. Observe your fleet and manage operations with any laptop, desktop or mobile computer from anywhere in the world. With a free Slingshot account, you can:

- Track equipment locations
- Dispatch prescription maps
- Monitor, collect, and analyze job data from Raven field computers

SLINGSHOT REMOTE SUPPORT

With Slingshot, you get real-time, in-field remote support. You don't have to leave the cab — we're able to see your screen, diagnose, fix or walk you through the issue.



Slingshot is constantly improving and always up to date with support for the latest Raven products. We're continually adding new functionality and features to help you get the most out of your hardware. In addition to the features and functionality available directly through the Slingshot web portal, Slingshot also lets you utilize the benefits of connectivity and cloud-based solutions in the software package of your choice. Slingshot's open platform means you can integrate the functionality of Slingshot directly into the applications that you already use to manage your business and operations. Slingshot works in a culture of collaboration with leading agriculture software and application providers.



www.ravenslingshot.com

Cruizer II™

Cruizer II™ RTK

SMARTYIELD™ PRO

Dealers installing their first SmartYield™ Pro systems were amazed at the ease and speed at which an installation could be completed. The system was extensively tested on over 40,000 acres of all major crops with accuracies often exceeding 97%.

Producers who tested SmartYield™ Pro side by side against factory installed force-plate technology consistently commented on ease of calibration and spatial accuracy of SmartYield™ Pro. Data analysis post-harvest is validating these comments with most customers preferring to use their Raven yield data vs the yield data generated by their factory installed equipment.

SLINGSHOT® READY

When you use the revolutionary Slingshot RTK/Online Service with SmartYield, you have access to seamless data transfer capabilities. Real-time communications and data sharing with any computer anywhere ensure better decisions and more productivity in the field. And Slingshot gives you access to live remote support from Raven's team of experts.



SMARTYIELD COMPATIBLE WITH THE FOLLOWING FIELD COMPUTERS:

Envizio Pro™

Envizio Pro II®

Envizio Pro XL™

Slingshot®



KEY BENEFITS

- Non-contact optical sensors increase yield data accuracy, provide simple calibration and allow for faster start-up
- Real-time moisture sensing
- Slingshot® ready for wireless data transfer



FEATURES INCLUDE:

- Real-time display of bushels per acre—both wet and dry, along with moisture
- User configurable legends
- Non-contact optical sensor with hillside compensation ensures more accurate yield data, simpler calibration and faster start-up
- Pre-set combine calibration numbers
- AccuHeader™ automatically shuts off header sections over already harvested areas for proper yield calculations

SMARTYIELD PRO

HARVEST CONTROLS

USA | 1-800-243-5435
RavenPrecision.com

CANADA | 1-800-793-2155
RavenCanada.com

CRUIZER II™ CRUIZER II™ RTK

CRUIZER II / CRUIZER II RTK

Looking for guidance?
Check out the Cruiser II and
Cruizer II RTK, which can make
your life easier and less stressful.
You get sophisticated guidance
technology that's simple and easy
to use, with your choice of four
field patterns.



Weather resistant versions are
available for use in open cabs.

FEATURES INCLUDE:

- Color touch-screen display, 20+ languages
- Greater accuracy and efficiency in a variety of operations – from tillage and seeding to spraying and harvesting
- Cost-efficient RTK at its best with Cruiser II RTK
- Add automatic sectional shut-off for planters and sprayers, auto steer, assisted steering and yield monitoring
- Bird's-eye view and downfield 3D perspective for checking coverage and keeping you on line
- Load/save A-B lines and jobs
- Field markers
- Record field boundaries
- SHP (Shapefile) files, KML and bitmap files for enhanced record-keeping

CRUIZER II/CRUIZER II RTK CAN BE
FULLY UTILIZED BY ADDING:

AccuBoom™

AccuRow™

SmarTrax™ MD

SmarTrax™/
SmarTrax™ RTK

Slingshot®

CANADA | 1-800-793-2155
RavenCanada.com

USA | 1-800-243-5435
RavenPrecision.com



Cruizer II and Cruizer II RTK take minutes to install easily. Cruizer II RTK is compatible with Slingshot's® RTK correction signals.

CRUIZER II / CRUIZER II RTK

GUIDANCE & STEERING

USA | 1-800-243-5435
RavenPrecision.com

CANADA | 1-800-793-2155
RavenCanada.com

AutoBoom®

SMARTRAX™ SMARTRAX™ RTK

The more acres you farm, the more you'll appreciate SmarTrax and SmarTrax RTK assisted steering.

This unique hydraulic-assisted steering system enhances high speed operation by offering faster line acquisition, correction for changes in soil condition and implement pull. SmarTrax and SmarTrax RTK offer across-the-board GPS compatibility, 3D terrain compensation and automatic system calibration, along with:

- RTK accuracy and repeatability from year to year
- Best-in-class operating speeds for covering more ground faster
- Compatible with many steer-ready machines
- Multiple kits available to fit all modern tractor types
- Slingshot®-compatible RTK correction signals



GPS CORRECTION SIGNAL	PASS-TO-PASS ACCURACY	RAVEN ASSISTED STEERING
RTK (REAL TIME KENEMATICS)	SUB-INCH	SMARTRAX RTK
SATELITE GS	2-4 INCHES	SMARTRAX
SLINGSHOT GS	5-6 INCHES	SMARTRAX
WAAS/EGNOS	6-8 INCHES	SMARTRAX

Relax while you cover more ground with faster, more efficient applications.

SMARTRAX / SMARTRAX RTK COMPATIBLE WITH THE FOLLOWING FIELD COMPUTERS:

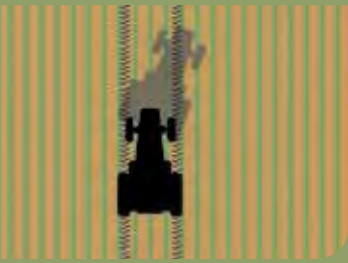
Cruizer II™

Cruizer II™ RTK

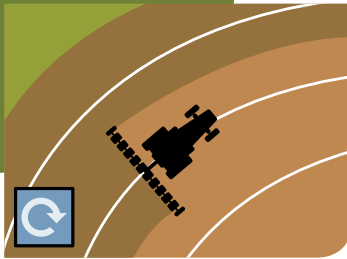
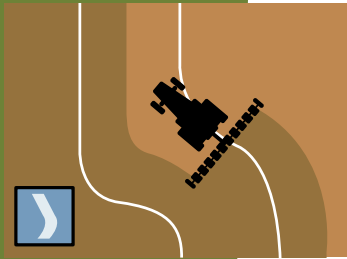
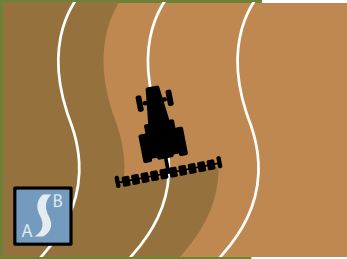
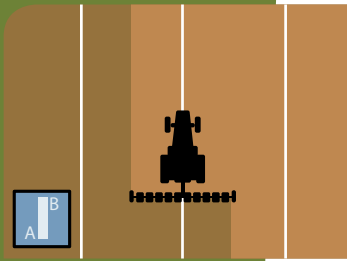
Envizio Pro™

Envizio Pro II®

Envizio Pro XL™



SmarTrax RTK offers 3D terrain compensation for maximum accuracy and repeatability, automatically adjusting for tractor roll, pitch and yaw.



SmarTrax and SmarTrax RTK are compatible with four field patterns for faster line acquisition, higher operating speeds and more relaxed driving.

SMARTRAX™ MD



Raven's new, simple-to-install mechanical drive steering system harnesses the newest technologies to keep you on track and on line all day long. You'll benefit from added torque for faster operating speeds, increased accuracy and reduced noise. Transfer SmarTrax MD between multiple tractors, including combines and more.

BENEFITS TO YOU INCLUDE:

- Faster operating speeds
- High torque for best in class line acquire and online performance
- Simple to install and move between machines
- 3D terrain compensation
- Quiet operation



RUN SMARTRAX MD FLAWLESSLY ON ANY OF THESE RAVEN DEVICES:

Cruizer II™

Cruizer II™ RTK

Envizio Pro™

Envizio Pro II®

Envizio Pro XL®

ViperPro™

Viper® 4

GPS RECEIVERS

Raven's high performance Phoenix™ receivers deliver highly accurate, reliable DGPS positioning using WAAS, GLONASS, EGNOS and Satellite GS Corrections. These receivers, along with the new Slingshot GS cellular based corrections, feature RTK capabilities and are ideal for precision farming where a rugged, simple-to-operate receiver is required.

PHOENIX 300™ DGPS RECEIVER:

High performance dual frequency receiver with sub-meter pass-to-pass accuracy, upgradable to 2"-4" accuracy or to RTK for sub-inch repeatable accuracy.

PHOENIX 200™ DGPS RECEIVER:

Single frequency receiver with sub-meter accuracy. Highly mobile and easily moved from one piece of equipment to another.

PHOENIX 50™ DGPS RECEIVER:

Compact all-in-one receiver gives you the ability to log data and provide speed output to your Raven controller. Generates real-time position solutions at 4Hz per second and, therefore, is not recommended for assisted steering. Simple setup.

PHOENIX 10™ SPEED SENSOR:

Compact unit providing speed output to your Raven controller. More reliable and unaffected by mud and other field conditions that can interfere with radar. Setup is fast and easy.



The Phoenix 200 and Phoenix 300 are GLONASS-capable, and Cruiser II™ comes with GLONASS.

The Cruiser II guidance system comes with a built-in, sub-meter GPS receiver, GLONASS and Autonomous GPS.

The Cruiser II RTK comes with a built-in, sub-inch RTK capable receiver.

The Envizio Pro II® comes with a built-in dual frequency GPS receiver capable of RTK, GLONASS and Autonomous GPS.

RECEIVER	ACCURACY	CORRECTION
PHOENIX 10	N/A	GPS SPEED
PHOENIX 50	2M RMS	SBAS
PHOENIX 200	9" PASS TO PASS RMS	SBAS, AUTONOMOUS GPS
PHOENIX 300	SCALABLE	SBAS, DECIMETER, RTK, AUTONOMOUS GPS

SATELLITE GS



Raven now offers Satellite GS Corrections that utilizes TerraStar-D network of satellites. Raven has you covered with two types of correction delivery: Satellite GS which sends corrections via satellite, and Slingshot GS which is delivered via cellular service.

RAVEN GS CORRECTIONS

	ACCURACY	GLONASS	DELIVERY	SUBSCRIPTIONS
SBAS	SUBMETER	WITH UPGRADE	SATELLITE	N/A
SATELLITE GS	10 CM	YES	SATELLITE	VARIABLE
SLINGSHOT GS	15 CM	NO	CELLULAR	N/A
SLINGSHOT RTK	2.5 CM	YES	CELLULAR	VARIABLE

GS CORRECTIONS REQUIREMENTS

	SATELLITE GS	SLINGSHOT GS
PURCHASING	CONTACT YOUR RAVEN DEALER	CONTACT YOUR SLINGSHOT DEALER
UNLOCKS	RECEIVER UNLOCK	RECEIVER UNLOCK, FIELD HUB UNLOCK
HARDWARE	CABLE RECEIVER: PHOENIX 300 WITH USB, ENVIZIO PRO II, VIPER 4	SLINGSHOT FIELD HUB CABLE RECEIVER: PHOENIX 300 WITH USB, ENVIZIO PRO II, VIPER 4
SATELLITE GS SUBSCRIPTION	YES	NO
CELLULAR PLAN	NO	YES

RECEIVE SATELLITE GS CORRECTIONS ON ANY OF THESE RAVEN DEVICES:

Phoenix 300™
with USB

Envizio Pro II®

Viper® 4

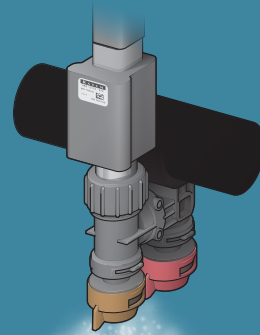
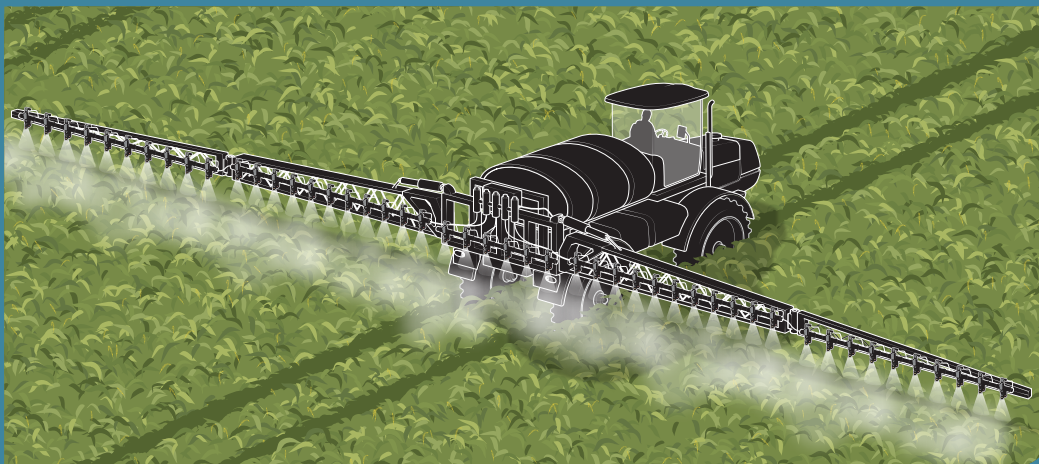
HAWKEYE™

NOZZLE CONTROL SYSTEM

The core to Raven's legacy has been application controls and this new product further cements our stellar reputation. The Hawkeye Nozzle Control System is the newest innovation in Raven technology – and the next application control system for your sprayer.

Raven's Hawkeye Nozzle Control System is ultra-precise. This pressure based product control system allows for precise sprayer application in a variety of conditions, reducing spray drift and getting the most out of every nozzle. Each nozzle is controlled by its own individual pulsing valve giving you a consistent spray pattern whether you are driving 5 or 20 miles per hour, depending on your nozzle tip size.

The Hawkeye System is built on the ISOBUS communication platform which allows it to work with most ISO Task Controllers on the market, including the Viper® 4 by Raven.



BENEFITS TO YOU INCLUDE:

- Reduced spray drift, consistent spray pattern, accurate droplet size and placement
- Pressure-based nozzle control system
- Turn compensation standard
- Fully integrated with machine application control system
- ISO compatible, including the Viper® 4
- Simple, clean installation and setup
- Individual valve diagnostics

FLOW CONTROLS

SPRAY CONTROL CONSOLE

For more than three decades, Raven spray controllers have set the standard for outstanding performance and everyday reliability and operation.



SCS 4400

5-product capability (liquid, granular, NH3, direct injection) with 7 boom switches.

STANDARD SCS CONSOLE FEATURES:

- Simple operation
- Low-limit function
- Digital boom pressure read-out
- Supports a variety of Flow Meters and Control Valves
- Audible alarms
- Self-test function
- Rate bump features



SCS 450

One-product capability (liquid, NH3) with 6 boom switches.



SCS 660M

One-product capability (liquid, granular, NH3, manure) with one master boom switch.

SPRAY CONSOLE	PRODUCT CAPABILITY	PRODUCT FORMS	DIRECT INJECTION	BOOM CONTROLS	BOOM SWITCHES	DATA LOGGING
SCS 4400	5 Products: 1 Hardwired, 4 via CANbus addition	Liquid, granular, NH3	Yes with Sidekick Pro	10 boom sections	Equipped with 7 switches	No
SCS 4600	5 Products: 1 Hardwired, 4 via CANbus addition	Liquid, granular, NH3	Yes with Sidekick Pro	10 boom sections	Remote switches required	No
SCS 5000	5 Products: CANbus equipped	Liquid, granular, NH3	Yes with Sidekick Pro	10 boom sections	Remote switches required & CAN nodes	No
SCS 440	1 Product	Liquid, NH3	Yes with Sidekick	3 boom sections	Equipped with 3 switches	No
SCS 450	1 Product	Liquid, NH3	Yes with Sidekick	6 boom sections	Equipped with 6 switches	No
SCS 460	1 Product	Liquid, NH3	Yes with Sidekick	7 boom sections	Remote switches required	No
SCS 660	1 Product	Liquid, granular, NH3	Yes with Sidekick	7 boom sections	Remote switches required	No
SCS 660M	1 Product	Liquid, granular, NH3, Manure	Yes with Sidekick	7 boom sections	Equipped with Master switch	No

FLUID TRANSFER SYSTEMS, VALVES AND FLOW METERS

Raven offers a variety of competitively priced valves, flow meters, flow attachments and manual control systems specially engineered for compatibility with your existing equipment.

FLOWMAX™ FLUID TRANSFER SYSTEMS

Raven's FlowMax fluid transfer systems make it easy to monitor product flow from the nurse truck to your sprayer.



FLOWMAX™ 221 TRANSFER SYSTEM

- Flanged 2" plumbing (M220)
- Weather-resistant enclosure
- Simple setup and operation
- Replaceable 3.6 volt long-life battery
- Records three separate total volumes
- Displays rate of flow in U.S. or metric
- Mounts "in-line" to monitor flow rate with maximum precision
- Self-contained digital display shows flow rate and totals
- 200 GPM maximum
- Self-contained – no other consoles, cables or flow meters needed

FLOWMAX™ 110 TRANSFER SYSTEM

- Economical single-product flow monitor
- Quick installation and setup
- Backlit display window
- Batch volume
- Rate of flow
- Total and sub-volume measured
- Requires a Raven flow meter of your choice



FLOWMAX™ 810 BATCH CONTROLLER

- Pre-cutoff setting to ensure accurate batch volume
- Quick and easy installation and programming
- Optional cable lengths to fit your requirements
- Start, stop and clear batch controls
- Programmable batch size
- Non-volatile memory
- Requires a Raven flow meter of your choice



FLOW CONTROLS

FLOW METERS

Raven RFM flow meters measure a wide range of liquids at flow rates from 0.1 GPM to 3000 GPM. For monitoring liquid, NH₃ and manure applications, the Magmeter Series is the best option.



RFM 200 FLOW METER

One of our many high quality, durable flow meters. Features 15-200 GPM capacity.



RFM 60P

Raven's most commonly used flow meter with 1-60 GPM capacity.

RFM FLOW METER AND MAGMETER PRODUCT GUIDE

FLOW METER	FLOW RATE	MATERIAL	FITTINGS
RFM 5	0.1-5 GPM	Stainless Steel	1/4" NPT
RFM 15	0.3-15 GPM	Poly	M200 Flanged/1-1/2" NPT
RFM 60S	1-60 GPM	Stainless Steel	1-1/2" NPT
RFM 60P	1-60 GPM	Poly	M200 Flanged/1-1/2" NPT
RFM 100	5-100 GPM	Poly	M220 Flanged/2" NPT
RFM 200	15-200 GPM	Cast Iron	3" NPT

FLOW METER	FLOW RATE	MATERIAL	FITTINGS
RFM 200P	15-200 GPM	Poly	M300 Flanged/3" NPT
MAGMETER-3"	22-955 GPM	Stainless Steel/Teflon	ANSI B16.5
MAGMETER-4"	35-1493 GPM	Stainless Steel/Teflon	ANSI B16.5
MAGMETER-6"	70-3000 GPM	Stainless Steel/Teflon	ANSI B16.5

VALVES

Raven valves are designed and manufactured for simple maintenance and serviceability.



BUTTERFLY AND BALL VALVES

- Compatible with popular flange fittings
- Features internal female NPT pipe threads for non-flange fittings
- Excellent wear and chemical resistance
- Available in Poly and Stainless Steel

	1/4 IN.	3/4 IN.	1 IN.	1 1/4 IN.	1 1/2 IN.	2 IN.	3 IN.
BUTTERFLY		X	X		X	X	X
BALL	X	X	X	X			



BOOM VALVES

- High flow boom valves
- 40 GPM @ 5 PSI pressure drop per valve
- 175 PSI pressure rating
- M200 Banjo flange inlet
- 3/4" female NPT outlets or M100 flanged
- 0.7 seconds on-time/off-time
- Plunger-style valve for complete shut-off
- Optional user configuration: 1-section to 10-section banks



ON/OFF & CONTROL VALVES

- Advanced power head design
- NH3 On/off valves include on/off indicator
- Full line of stainless steel and poly on/off and control valves
- Simple maintenance and servicing



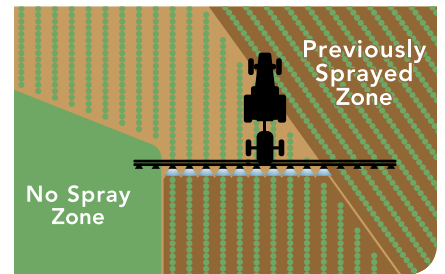
HYDRAULIC CONTROL VALVES

- 3000 PSI pressure rating
- 60-115 Hz recommended pulse frequency
- Available in 5, 10, 15 and 30 GPM models
- PWM Control

SWITCH PRO™

The Switch Pro control console is designed to help growers move up to a new level of precision. Replace your Raven SCS 440, 450 or 4400 spray console with Switch Pro—and pair it with any of our Envizio Pro™ series field computers, Viper Pro™ or Viper® 4 field computer.

With Switch Pro you have on-off section control, adjustable 0-100 percent coverage control and a manual override function for greater savings and productivity.



FEATURES INCLUDE:

- Simple installation
- Single-product liquid or NH₃ application control
- AccuBoom™ automatic section shut-off
- AccuBoom automatic 10-section on/off boom control prevents overspraying and skips on point rows and headlands and reduces operator stress/fatigue

SWITCH PRO COMPATIBLE WITH THE FOLLOWING FIELD COMPUTERS:

Envizio Pro™

Envizio Pro II®

Envizio Pro XL™

Viper® 4

Viper Pro™

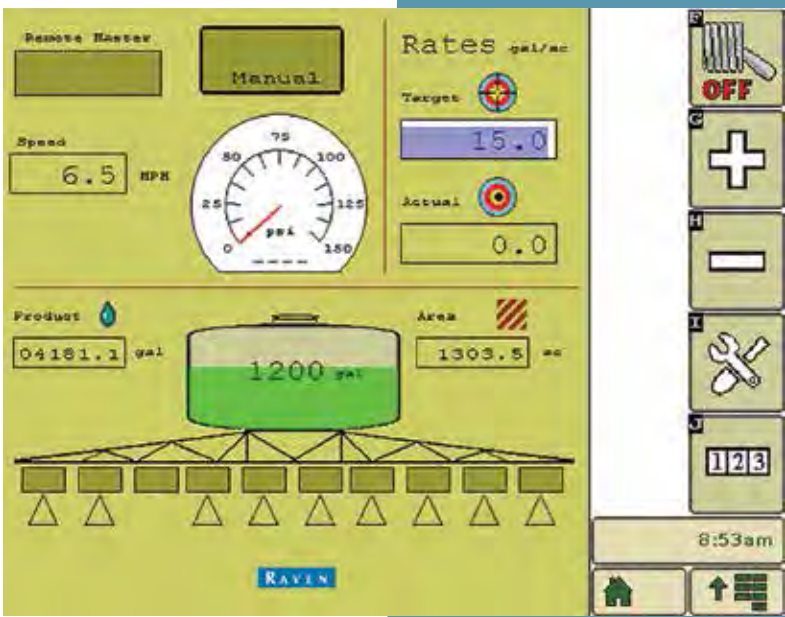
ISOBUS PRODUCT CONTROL

ISOBUS PRODUCT CONTROL APPLICATION CONTROLS

FEATURES INCLUDE:

- Industry leading flow and application control technology
- Optional switch box for manual override of individual sections
- Task controller interface*
- Section control compatible*
- Data-logging*
- Variable rate application*

**Features available with supporting virtual terminals*



COMPATIBLE PRODUCTS:

Liquid Control

Granular
Control with
Spinner Control

AccuFlow™
(NH3) Control

Sidekick Pro™

USA | 1-800-243-5435
RavenPrecision.com

CANADA | 1-800-793-2155
RavenCanada.com

ACCUFLOW™ ACCUFLOW HP™ PLUS

Raven has raised NH3 application technology to new levels of performance with the AccuFlow Vortex cooler and AccuFlow HP (high performance) Plus. Both models use super cooling technology to stabilize NH3 as a liquid for superior accuracy and control.

FEATURES:

- Single valve or dual valve system options
- Capable of up to 8-section shut-off
- Convenient cooler disassembly for easier maintenance
- Increased capacity and smaller footprint on the toolbar
- Designed with safety in mind

ACCUFLOW HP PLUS SYSTEM FEATURES:

- The industry's first variable speed pump, which runs only when it is needed
- Saves on fuel and tractor horsepower and reduces system wear and tear
- Simply set your target rate and let AccuFlow HP Plus get the job done
- Ideal for running at faster application speeds and cooler temperatures
- Nearly doubles the capacity for handling the most demanding situations
- Advanced control algorithms for high or low end operation

ACCUFLOW VORTEX COMPATIBLE WITH THE FOLLOWING RAVEN UPGRADES AND FIELD COMPUTERS:

SCS Consoles

Envizio Pro™

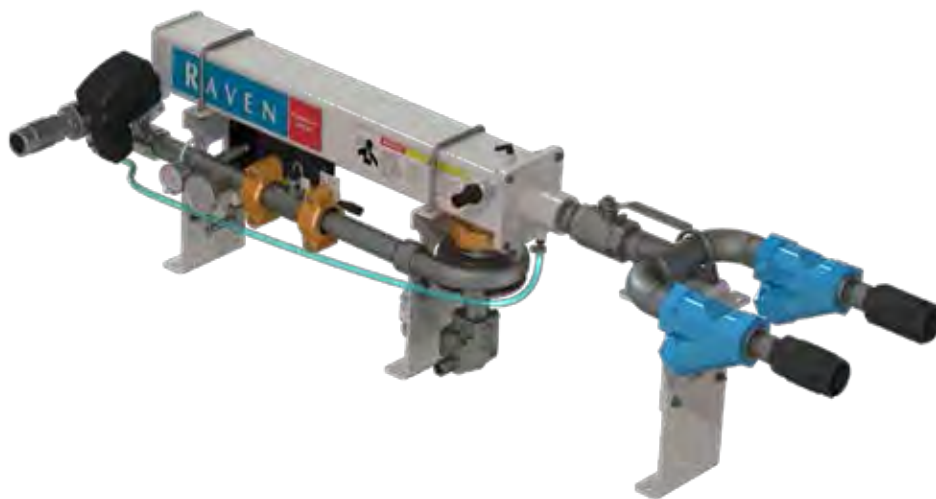
Envizio Pro II®

Envizio Pro XL™

Viper®4

ViperPro™

Paired with your Raven control system, AccuFlow Vortex super cooling NH3 technology replaces the dual cooler system to give you superior accuracy and control over your applications for higher yields, less waste and lower input costs.



THE HIGH PERFORMANCE DIFFERENCE*

SINGLE CONVENTIONAL COOLER	30 GPM
ACCUFLOW VORTEX COOLER	50 GPM
ACCUFLOW HP PLUS WITH VORTEX COOLER	80 GPM

* Results may vary depending on your system and set-up.

The unique AccuFlow HP Plus pump is designed for maximum performance and safety.



SIDEKICK PRO™

Raven's Sidekick Pro direct injection systems help you save time and money on applications of herbicides, insecticides, drift agents and nitrogen stabilizer. The industry leader in direct injection, Sidekick Pro features:

- Up to 4 units on one machine, allowing easy switching between fields and applications
- No pre-mixing, tank mixing, cross contamination or clean out
- Powerful positive displacement pump which injects on the pressure side, closer to the boom, for faster response time
- Low volume capacity of 1-40 oz/minute
- High volume capacity range of 5-200 oz/minute
- Eliminates waste for more environmentally friendly practices
- Reduced chemical exposure means additional safety for operator
- Adjust chemical concentration on the fly rather than spraying more or less of the entire mix
- Gain flexibility in the work day — with direct injection, you don't need to worry about weather

RINSE ASSIST FOR DIRECT INJECTION

- Automatic rinse system that can clean the chemical out with the push of a button
- Three way valve automatically opens to a rinsing agent tank
- Valve automatically returns to chemical tank position at the end of the rinsing cycle

FIELD COMPUTER COMPATIBILITY FOR SIDEKICK PRO:

Viper®4

ViperPro™

Envizio Pro™

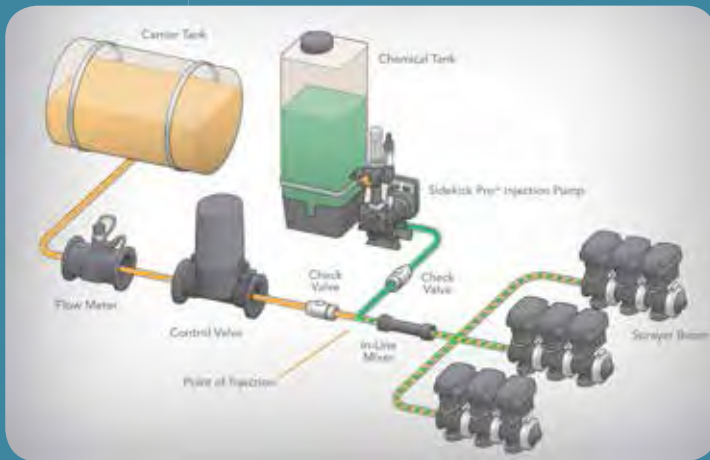
Envizio Pro II®

Envizio Pro XL™

SIDEKICK PRO

It's the direct injection system that sets a new standard for chemical applications of every type, with unprecedented precision, savings and safety. No tank mixing required—and with the industry's first remote and closed calibration and prime feature, you're ready to go in minutes. It also features:

- ISO compatible pump
- High resolution encoder that provides smoother pump control and exceptional lock on target rate technology
- Remote closed-system calibration, eliminating the need for calibration catch tests and exposure to chemicals
- Automatic priming feature
- Real-time diagnostics



The Sidekick Pro injects chemicals directly into the in-line mixing tube to eliminate pre-mixing and costly leftovers.

SCS 5000™

SCS 4400™

SCS 4600™

ISOBUS

SIDEKICK / SIDEKICK PRO

APPLICATION CONTROLS

USA | 1-800-243-5435
RavenPrecision.com

CANADA | 1-800-793-2155
RavenCanada.com

AUTOBOOM®

The AutoBoom automatic boom height control system offers faster operating speeds, simple calibration and user-friendly controls. Its unique hydraulic-powered design delivers a smooth and responsive height-adjusting system.

AutoBoom gives you increased efficiency with faster spraying speeds, covering more acres in less time and with less operator stress and fatigue. It also features:

- Automatic calibration, less than one minute per boom
- Optimal spray height ensured
- Ability to increase spraying speeds
- Up to 5 sensors, including center rack control
- Less wear and tear on the boom
- ISOBUS compatibility
- Pressure-based control for smoother boom movements and adjustments
- Upgrade to AUTOBOOM XT for extreme terrain



The stand alone controller allows users to add AutoBoom in the absence of a field computer.

COMPATIBLE WITH RAVEN DEVICES INCLUDING:

Envizio Pro™

Envizio Pro II®

Envizio Pro XL™

Viper® 4

ViperPro™

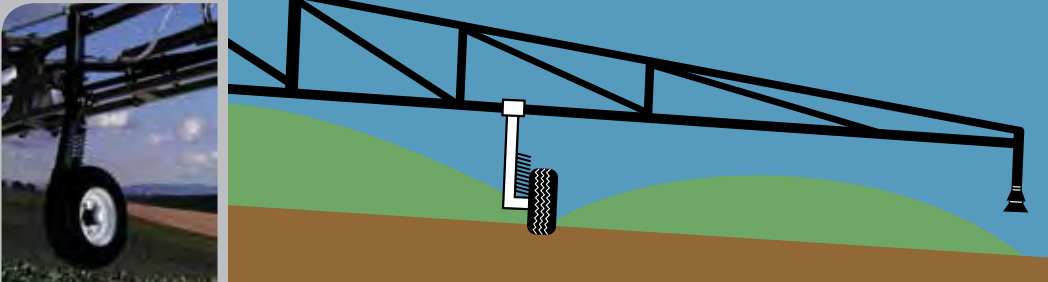
Cruizer II™

Aut
Con

CHOOSE FROM THESE OPTIONS:

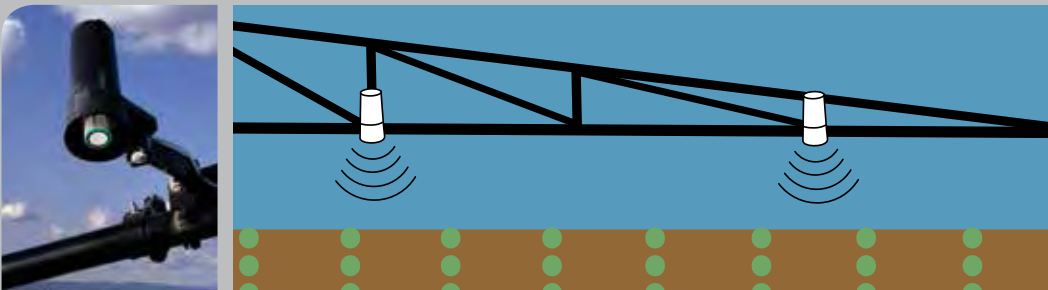
AUTOBOOM POWERGLIDE PLUS SYSTEM

Configure for use with any of Raven's multi-function field computers.



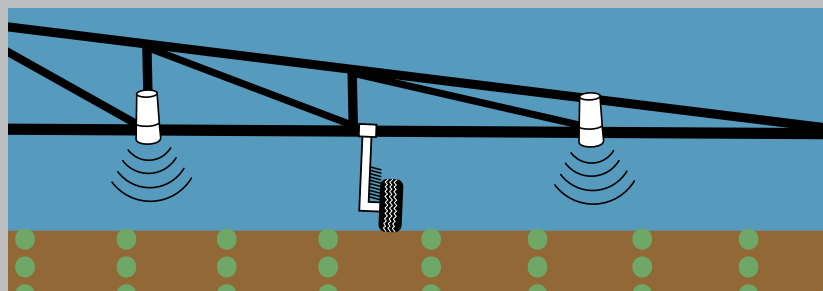
AUTOBOOM ULTRAGLIDE SYSTEM

This upgrade includes ultrasonic sensors that gauge the distance to the ground.



AUTOBOOM ULTRAGLIDE WITH POWERGLIDE PLUS

The ultimate upgrade offers the best of both systems.



AUTOBOOM XT

Provides optimal performance in extreme terrain conditions.

oBoom
ntroller

ISOBUS

AUTOBOOM

BOOM CONTROLS

USA | 1-800-243-5435
RavenPrecision.com

CANADA | 1-800-793-2155
RavenCanada.com

ACCUBOOM™

Control input costs with AccuBoom automatic section control. Greater fuel and chemical savings, faster spraying times, ease of operation and more accurate spraying improve your return on investment every season.

Dollar for dollar, AccuBoom offers the fastest payback in precision ag equipment.



FEATURES INCLUDE:

- Automatic on-off control for up to 10 sections
- Eliminate costly skips and overlaps
- Adjustable look ahead function lets you adjust settings easily for the overlap you choose
- Speed compensation function accounts for how fast you are driving and ensures properly timed shut-off

COMPATIBLE WITH RAVEN FIELD COMPUTERS INCLUDING:

Viper® 4

Viper Pro™

Envizio Pro™

Envizio Pro II®

Envizio Pro XL™



Optional remote control to help check nozzles quickly

SMARTBOOM™

With SmartBoom's automatic GPS-guided on-off section control, you can cash in on faster, more accurate spraying while eliminating costly skips and overlaps—and avoiding no-spray areas. SmartBoom is the simple and affordable way to add automatic section control to your application system. All you need is GPS, as SmartBoom does not require a field computer.



Cruizer II™

Cruizer II™ RTK

ACCUBOOM / SMARTBOOM

BOOM CONTROLS

USA | 1-800-243-5435
RavenPrecision.com

CANADA | 1-800-793-2155
RavenCanada.com

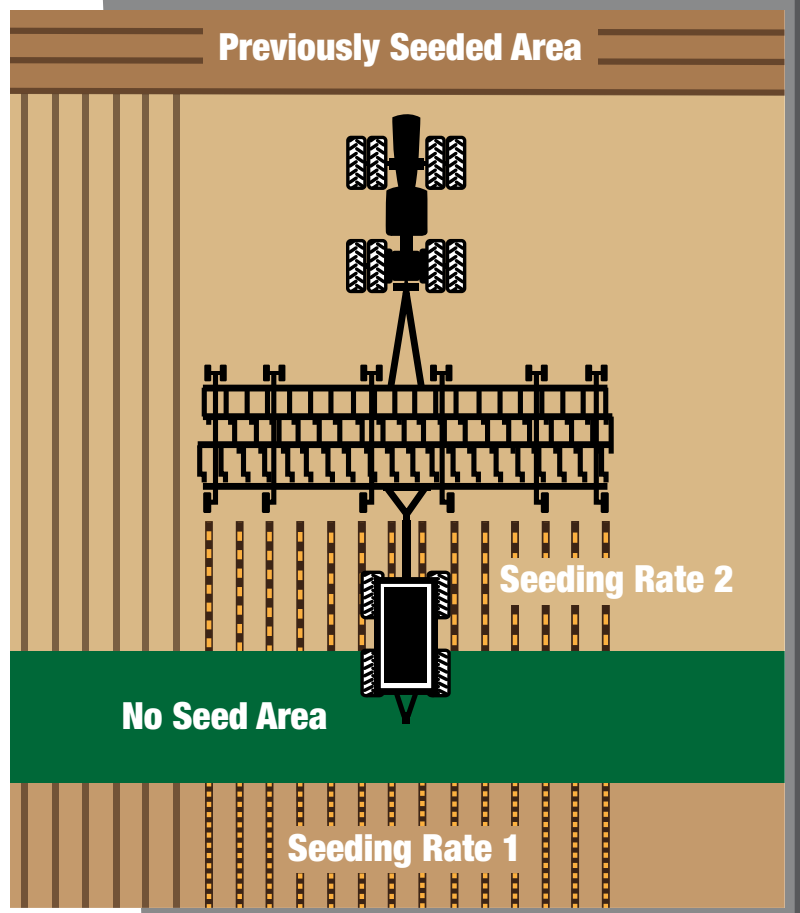
OMNISEED™

Here's the most advanced air seeding control system on the market.

OmniSeed is a fully integrated system offering you complete control and increased productivity.

One of OmniSeed's many time-saving features is a remote tank console which streamlines the air cart meter calibration process. Instead of running back and forth to the tractor cab, you can simply start and stop the meters remotely at the cart and enter calibration rates through the console.

OmniSeed combined with the Viper Pro and Envizio Pro series consoles provides multi-product variable rate seeding and section control to support efficient and accurate seeding and fertilizer application. The Viper Pro also supports agX™ recommendation files that provide detailed seed and chemical information to enhance application reports and data management.



OMNISEED COMPATIBLE WITH THE FOLLOWING RAVEN DEVICES:

ViperPro™

Envizio Pro™

Envizio Pro II®

Envizio Pro XL™

Slingshot®

THIS ADVANCED SYSTEM FEATURES:

- Advanced hydraulic motor-clutch for each bin to assure greater precision with simple single-section shutoff
- Integrated Run Blockage powered by AgTron™ to monitor run blockage with ease and simplicity
- Ultrasonic bin level sensors for more precise bin level indication
- Open lid indicator
- Remote tank calibration console
- Control multiple granular and liquid products simultaneously
- After-market install kits available
- Down pressure monitoring keeps you informed of changing soil conditions
- Data logging and record-keeping help make management easier
- AccuBoom™ section control for liquid applications



Remote Tank Console



Viper Pro Field Computer



Run Blockage powered by AgTron



Slingshot® RTK/Online Service



Hydraulic Motor Clutch

OMNIROW® MULTI-HYBRID

Raven's OmniRow advanced planter control system features fully integrated design with RTK sub-inch accuracy and patent-pending planter control technology. This system gives you the power to control seeding rates by row or sections for maximum precision and reliability.

ACCUROW™ & CRUIZER II™

As an alternative to OmniRow, growers may pair AccuRow with Cruizer II for simple automatic section control.

SLINGSHOT® READY

Use Slingshot RTK/Online Service with OmniRow for seamless data transfer capabilities. Real-time communications and data sharing with any computer anywhere ensure better decisions and more productivity in the field. And Slingshot gives you access to live remote support from Raven's team of experts.

OMNIROW COMPATIBLE WITH:

Envizio Pro™

Envizio Pro II®

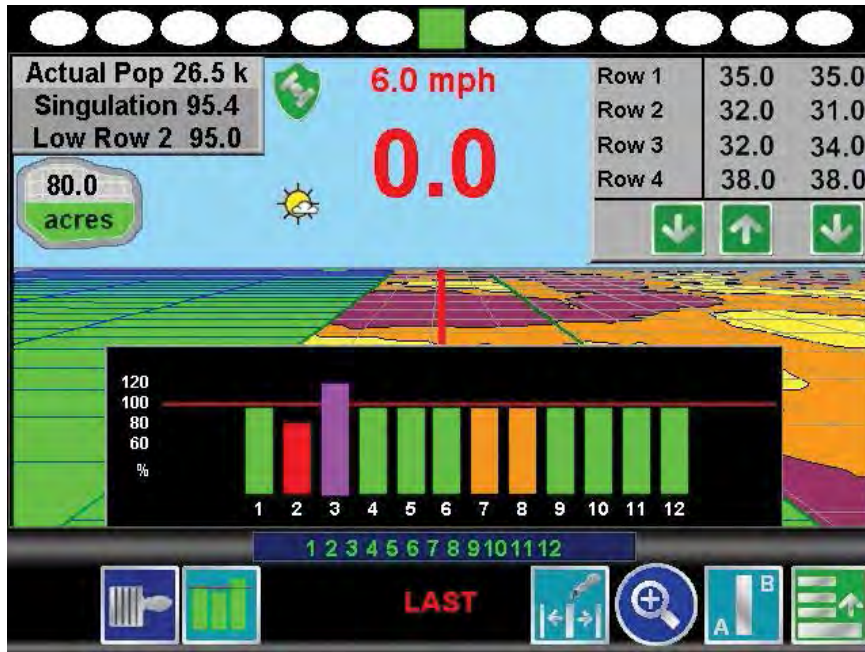
Envizio Pro XL™

Slingshot®



FEATURES:

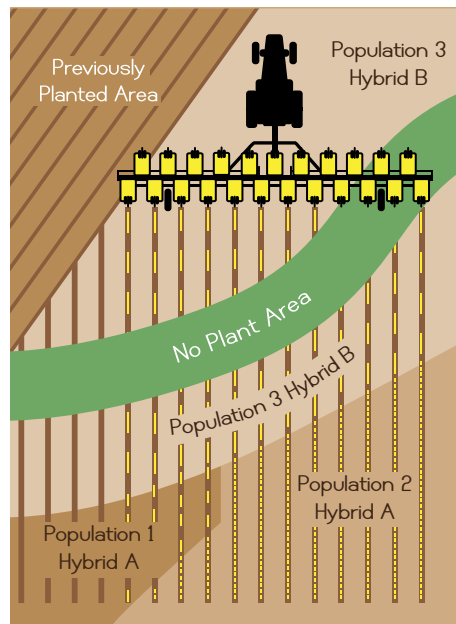
- Advanced hydraulic motor-clutch with integrated RPM sensor handles population control by row or section plus shutoff
- Variable-rate planting, manual or prescription based, by section or row
- Real-time seed monitoring and singulation by row reports skips and doubles
- Compatible with factory installed and after-market clutches or drive motors; will work with your existing equipment
- Multiple system configurations to meet variety of needs, budgets and requirements
- Track up to 4 varieties at once
- Patent pending turn compensation ensures proper seed spacing to maximize yield
- Hand held remote control provides start up and diagnostic convenience
- Planter Auxiliary node for planter down pressure monitoring and control; planter fan pressure monitoring and control; and bin level monitoring with integrated product and section control
- Industry first patent pending multi-hybrid control technology



OmniRow Controller & Motor-Clutch



Boom Valves for Integrated Liquid Applications



SERVICE & SUPPORT

While Raven is known for offering premier, state-of-the-art precision agriculture tools, we are also known for providing the industry's top service and support. Sources of support include:

- Raven's Precision Ag Specialists, located nationwide.
- The RavenHelp.com website, created to give you immediate access to technical information. The site offers a wealth of knowledge, including service manuals, specification sheets, replacement parts and more, along with an Ask an Expert e-mail feature.
- Telephone support from experts within the company.
- Remote live support with Slingshot® via high-speed Internet gives you instant, in-field support and service. Without leaving the cab, you can get help in real time to diagnose, fix or walk through solutions.
- Raven's network of dealers and distributors.





R A V E N

Raven Industries | 1-800-243-5435 | RavenPrecision.com

Canada | 1-800-793-2155 | RavenCanada.com

Fall 2014